

CLAIMS

1. A composition for mixing, the composition comprising,

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A)

- i) a biologically active compound with low water solubility
- ii) at least one water miscible solvent
- iii) at least one membrane lipid and/or at least one surfactant selected from the group consisting of fatty acids and salts thereof, polysorbate 80, poloxamer and Cremophor® EL

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and

B)

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a homogeneous, optically clear aqueous dispersion of lipids which allows at least 40% of light to be transmitted at a wave length of 660nm or an appropriate wave length using a 1 cm transmission cell or cuvette.

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2. The composition of claim 1, wherein the dispersion of lipids B consists of a diacyl lipid on its own or mixtures of the monoacyl and diacyl lipids in any combination obtained by enzyme hydrolysis.

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3. The composition of claim 1, wherein the water miscible solvent in A is selected from the group consisting of ethanol, 96% ethanol, absolute glycerol, propylene glycol, ethyl lactate, polyethylene glycol 300, polyethylene glycol 400, 1,3 butandiol, succinic acid diethyl ester, triethyl citrate, dibutyl sebacate, dimethyl acetamide, DMSO, glycerineformal, glycofurool (tetraglycol), isopropanol, lactic acid butyl ester, N-methylpyrrolidone, solketol, propylene carbonate, propylene glycol diacetate, tetrahydrofurfuryl alcohol, diethylene glycol mono ethyl ether, and triacetin.

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- 4. The composition of claim 1, wherein the dispersion of lipids B has an average particle size smaller than 1000 nm.

- 5. The composition of claim 4, wherein the dispersion of lipids B has an average particle size smaller than 300 nm.

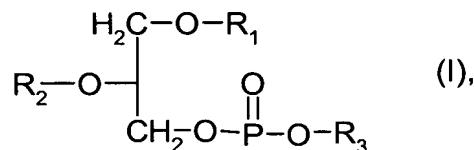
- 6. The composition of claim 1, wherein the dispersion of lipids B is a liposomal suspension.

- 10 7. The composition of claim 4, wherein the dispersion of lipids B is a liposomal suspension.

- 8. The composition of claim 5, wherein the dispersion of lipids B is a liposomal suspension.

- 15 9. The composition of claim 1, wherein the lipids in A and B are selected from the group consisting of phospholipids, glycolipids, sphingolipids, ceramides, gangliosides and cerebrosides.

- 20 10. The composition of claim 9, wherein the phospholipid is a phospholipid of the formula



wherein R1 represents C10-C20acyl; R2 represents hydrogen or C10-C20acyl; R3 represents hydrogen, 2-trimethylamino-1-ethyl, 2-amino-1-ethyl, C1-C4alkyl, C1-C5alkyl substituted by carboxy, C2-C5alkyl substituted by carboxy and hydroxy, C2-C5alkyl substituted by carboxy and amino, an inositol group or a glyceryl group or a salt of such compound.

11. The composition of claim 1, wherein the water miscible solvent in A is selected from the group consisting of absolute glycerol, ethyl lactate, 1,3 butandiol, succinic acid diethyl ester, triethyl citrate, dibutyl sebacate, dimethyl acetamide, DMSO, glycerineformal, glycofurool (tetraglycol), isopropanol, lactic acid butyl ester, N-methylpyrrolidone, solketol, propylene carbonate, propylene glycol diacetate, tetrahydrofurfuryl alcohol, diethylene glycol mono ethyl ether, and triacetin and in which the weight ratio of said biologically active compound to said membrane lipid is equal or larger than one.

12. The composition of claim 1, wherein A and B are held in separate containers.

15 13. A method of preparing molecular associates comprising a biologically active compound having low water solubility, the method comprising: mixing the content of a first container A) comprising,

- i) a biologically active compound with low water solubility
- ii) at least one water miscible solvent
- iii) at least one membrane lipid and/or surfactants selected from the group consisting of fatty acids and salts thereof, polysorbate 80, poloxamer and Cremophor® EL,

20 with the content of a second container B) comprising,
a homogeneous, optically clear aqueous dispersion of lipids which
allows at least 40% of light to be transmitted at a wave length of
660nm or an appropriate wave length using a 1 cm transmission cell
or cuvette.

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14. The method of in claim 13, wherein container A comprises a water miscible solvent selected from the group consisting of ethanol, 96% ethanol, absolute glycerol, propylene glycol, ethyl lactate, polyethylene glycol 300, polyethylene glycol 400, 1,3 butandiol, succinic acid diethyl ester, triethyl citrate, di-
5 butyl sebacate, dimethyl acetamide, DMSO, glycerineformal, glycofurool (tetraglycol), isopropanol, lactic acid butyl ester, N-methylpyrrolidone, solketol, propylene carbonate, propylene glycol diacetate, tetrahydrofurfuryl alcohol, diethylene glycol mono ethyl ether, and triacetin and in which the weight ratio of said biologically active compound to said membrane
10 lipid is equal or larger than one.

15. The method of claim 13, wherein the aqueous dispersion of lipids in container B is a liposomal suspension.

15 16. The method of claim 15, wherein the aqueous dispersion of lipids in container B comprises between 0.5% w/w to 25% w/w of at least one membrane lipid suspended in an isotonic, isohydric aqueous medium, optionally containing solvents and surfactants such as bile salts.

20 17. The method of claim 13, wherein the aqueous dispersion of lipids in container B is subjected to high pressure homogenisation and extrusion in a micro fluidiser to obtain a mean particle size smaller than 1000 nm.

25 18. The method of claim 13, wherein the aqueous dispersion of lipids is subjected to high pressure homogenisation and extrusion in a micro fluidiser to obtain a mean particle size smaller than 300 nm.

19. The method of claim 13, wherein the contents of container A is an amorphous powder which is prepared by precipitation and/or solvent removal
30 from a solution of a lipophilic compound in a solvent.

20. The method of claim 13, wherein the contents of container A is mixed with the aqueous dispersion of lipids in container B, to load said aqueous dispersion of lipids with a biologically active compound, so that a decrease in light transmission of not more than 25% of the initial value of B measured at a wavelength of 660 nm or an appropriate wave length using a 1 cm transmission cell or cuvette is obtained.
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21. The method of claim 20, wherein the mixing of the contents of containers A and B is carried out *in situ*.
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22. The method of claim 13, further comprising preparing a concentrate for adding to infusion fluids.